

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A computer-implemented system for storing data, the system comprising:

a ~~processor~~ computer for executing instructions;

a memory operatively coupled to the ~~processor~~ computer for storing the instructions, the executed instructions providing:

one or more member cubes storing data partitioned along a single partitioning dimension;
and

a control cube having metadata about the one or more member cubes, the metadata including hierarchy information of the partitioning dimension above the one or more member cubes, the control cube providing control information used by a query engine accessing the data stored in the one or more member cubes.

Claim 2 (Original) The system as claimed in claim 1, wherein the control cube has an entire partitioned dimension relative to the member cubes.

Claim 3 (Currently Amended) The system as claimed in claim 2, wherein one or more of the member cubes further store data along one or more other dimensions, and store one or more measures; and wherein the metadata further includes:

a listing of other dimensions of the one or more member cubes; and

a listing of measures of the one or more member cubes.

Claim 4 (Currently Amended) The system as claimed in claim 1, wherein the data is partitioned along ~~the~~ a time dimension.

Claim 5 (Currently Amended) The system as claimed in claim 4, wherein one or more of the member cubes further store data along one or more other dimensions, and store one or more measures, and wherein the control cube has:

- an entire time dimension relative to the member cubes;
- a listing of the one or more other dimensions of the one or more member cubes; and
- a listing of the one or more measures of the member cubes.

Claim 6 (Original) The system as claimed in claim 5, wherein a member cube is added to the system.

Claim 7 (Previously Presented) The system as claimed in claim 6, wherein a member cube of the one or more member cubes is removed from the system.

Claim 8 (Original) The system as claimed in claim 5, wherein the control cube restricts access to member cubes.

Claim 9 (Currently Amended) The system as claimed in claim 5, further comprising a plurality of control cubes, each control cube coupled with a group of member cubes from a pool of member cubes partitioned along the single ~~portioning~~ partitioning dimension to form a separate dimension-based partitioned cube.

Claim 10 (Original) The system as claimed in claim 9, wherein different control cubes over the same pool of member cubes restrict data access to different portions of data for different users.

Claim 11 (Currently Amended) The system as claimed in claim 2 1, further comprising a further control cube coupled with a group of member cubes, and wherein a member cube of the one or more member cubes is a the further control cube of ~~another dimension-based partitioned~~ cube.

Claim 12 (Currently Amended) A computer-implemented method of transforming a body of data into a dimension-based partitioned cube, the method comprising ~~the steps of~~:

partitioning the data into one or more dimension-based partitions, the data partitioned along a single partitioning dimension;
creating member cubes corresponding to the one or more dimension-based partitions;
creating a control cube having metadata about the member cubes, the metadata including hierarchy information of the partitioning dimension above the one or more member cubes; and
providing control information used by a query engine to accessing the data distributed over the member cubes ~~though~~ through the control cube.

Claim 13 (Currently Amended) The method as claimed in claim 12, wherein the data is partitioned along ~~the~~ a time dimension.

Claim 14 (Original) The method as claimed in claim 13, wherein the data is partitioned into equidistant time intervals.

Claim 15 (Original) The method as claimed in claim 13, wherein the data is partitioned into non-equidistant time intervals.

Claim 16 (Original) The method as claimed in claim 13, wherein the data is partitioned into a sliding window of time intervals.

Claim 17 (Withdrawn): A method of querying a dimension-based partitioned cube, the method comprising the steps of:

analyzing a query received for a body of data organized into a dimension-based partition cube;
redirecting the query to one or more member cubes; and
aggregating results received from the one or more member cubes.

Claim 18 (Withdrawn): The method of claim 17, wherein the data is partitioned along the time dimension.

Claim 19 (Withdrawn): An online analytical processing query engine comprising a logic module for implementing the method of claim 17.

Claim 20 (Withdrawn): An online analytical processing query engine comprising a logic module for implementing the method of claim 18.

Claim 21 (Currently Amended) The system as claimed in claim 1, wherein the metadata of the control cube further comprises:

~~information describing how the member cubes are related to each other along the single partitioning dimension; and~~

information describing what the member cubes are, and how the member cubes are deployed.

Claim 22 (Currently Amended) The method as claimed in claim 12, wherein creating the control cube further comprises:

~~including metadata describing how the member cubes are related to each other along the single partitioning dimension;~~

including in the metadata of the control cube a description describing of what the member cubes are, and how the member cubes are deployed in the metadata of the control cube.

Claim 23 (Previously Presented) The method as claimed in claim 12, wherein accessing the data distributed over the member cubes through the control cube comprises accessing an entire partitioned dimension relative to the member cubes.

Claim 24 (Currently Amended) The method as claimed in claim 12, further comprising adding metadata of an additional a member cube to the control cube.

Claim 25 (Currently Amended) The method as claimed in claim 12, further comprising removing metadata of a member cube of the one or more member cubes from the control cube.